

Green Heat Coop

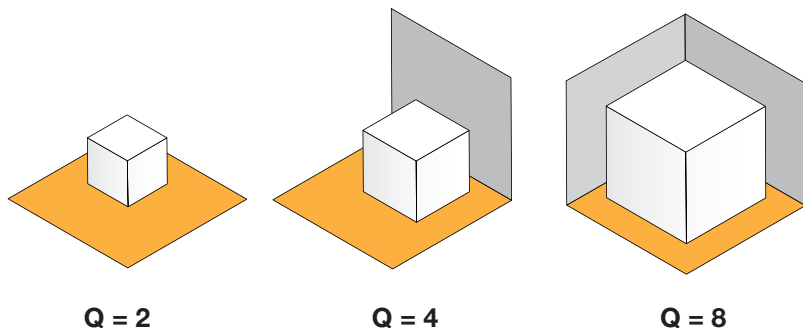
Assessment date:	5 Aug 2024	Assessment result:	PASS
MCS Installation company:	Green Heat Coop		
Site Reference:	Gamelands		
ASHP Manufacturer:	Vaillant		
ASHP Model:	Arotherm Plus 5 kW		

Assessment position description:

The assessment position is the ground floor living room window at the rear of 16 North Close. This is 18 meters from the proposed air source heat pump location. The assessment position is fully obscured by the fence.



Step 1:	A-Weighted Sound Power Level from manufacturer	54.0
Step 2:	Determination of directivity (Q)	4
Step 3:	Distance from heat pump to the assessment position in metres	18
Step 4:	dB distance reduction	-28
Step 5:	dB reduction for any barriers between heat pump and assessment point	-10
Step 6:	Calculated Sound Pressure Level (Step 1 + Step 4 + Step 5)	16.0
Step 7:	Assumed background noise level	40
Step 8:	Difference between background noise level and heat pump noise level	24.0
Step 9:	Final decibel corrected sound level (< or = 42dB = Pass)	41dB



Decibel Correction (Step 9)	
Left column values apply to both positive and negative dB values	
Difference between the two noise levels (dB) (+/-)	Correction to be added to the higher noise level
0	3.0
1	2.5
2	2.1
3	1.8
4	1.5
5	1.2
6	1.0
7	0.8
8	0.6
9	0.5
10	0.4
11	0.3
12	0.3
13	0.2
14	0.2
15	0.1

Barriers (Step 5)	
Is there a barrier between the heat pump and the assessment point?	
A solid barrier (e.g, brick wall or fence) completely obscures the installers vision of the assessment position from the top edge of the ASHP	-10
A solid barrier completely obscures the installers vision of the assessment position from the top or side edges of the ASHP, but moving a maximum distance of 25cm in any direction of the ASHP allows an assessment position to be seen	-5
It is possible for the installer to see any part of an assessment position from the top or side of the ASHP	0

	dB Distance Reduction (Step 4)													
	Distance in meters from Heat Pump (Step 3)													
	1	1.5	2	3	4	5	6	8	10	12	15	20	25	30
Q (step 2)														
2	-8	-11	-14	-17	-20	-21	-23	-26	-28	-29	-31	-34	-36	-37
4	-5	-8	-11	-14	-17	-19	-20	-23	-25	-26	-28	-31	-33	-34
8	-2	-5	-8	-11	-14	-16	-17	-20	-22	-23	-25	-28	-30	-31